

## 🐑 De La Salle University - Dasmariñas ( **BIOLOGY PROGRAM**

## EFFECTS OF Arachis hypogaea L. (PEANUT) OIL ON THE SERUM CHOLESTEROL LEVEL OF Rattus norveigicus (ALBINO RATS)

An Undergraduate Research Presented to

**Biological Sciences Department** College of Science and Computer Studies De La Salle University–Dasmariñas

City of Dasmariñas Cavite

In Partial Fulfillment of the Requirements

for the Degree of Bachelor of Science

Major inHuman Biology

### **DESIREE B. ANG**

**GUINDELLE LYNNE A. NADAL** 

March 2014

De La Salle University - Dasmariñas

### ABSTRACT

The effect of different amounts of *Arachis hypogaea* oil on the blood cholesterol of albino rats was determined in this study. Twenty four rats were used in the experiment and grouped into four treatments namely, To- negative control of peanut oil, T1 - 2.5 ml of peanut oil, T2 - 3.75 ml of peanut oil, T3 - 5 ml of peanut oil, all treatments were done in triplicates. Rats were subjected to a week of acclimatization. Thereafter, administration of buttered pellets for one week was performed to obtain the hypocholesterolimic condition of the rats. Different amounts of peanut oil were orally given to the rats for one week. Blood serum analysis was analyzed through the use of digital cholesterol testing kit. Results showed that peanut oil can significantly reduce blood cholesterol (p<0.05). Although, there is no significant difference between the amount peanut oil. The efficiency of the plant to reduce the blood cholesterol level of the rats can be due to phytochemical components such as resveratrol.

# De La Salle University - Dasmariñas

## **TABLE OF CONTENTS**

Abstract	2
Approval Sheet	3
Acknowledgement	4
Table of Contents	5
CHAPTER 1 INTRODUCTION	
1.1 Background of the Study	7
1.2 Conceptual Framework	8
1.3 Statement of the Problem	9
1.4 Hypothesis	9
1.5 Scope and Limitations	10
1.6 Significance of the Study	10
1.7 Definition of Terms	11
CHAPTER 2 REVIEW OF RELATED LITERATURE	
2.1 Conceptual Literature	13
2.2 Related Studies	21
CHAPTER 3 METHODOLOGY	
3.1 Research Design	24
3.2 Research Procedure	24
3.3 Data Gathering	26



# De La Salle University - Dasmariñas

CHAPTER 4 RESULTS AND DISCUSSION	
4.1 Results	28
4.2 Discussion	30
CHAPTER 5 CONCLUSION AND RECOMMENDATIONS	
5.1 Conclusion	33
5.2 Recommendations	33
CITED REFERENCES	34
APPENDICES	
A. The Test Plant	39
B. Treatment Flow Chart	40
C. Raw Data	41
D. Statistical Analysis	42
E. Photo Documentation	43
F. Curriculum Vitae	51

6